THE PROSPECT FOR OPTIMUM REGIONAL PRODUCTION IN THE SOUTHERN REGIONS[1]

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THIS paper presents a preliminary approach and method for some systematic study of southern regional economy; therefore, it attempts to present only some general tools and some of the difficulties and perplexities with which such a study meets; it is in no sense to be considered critical of any definitely proposed scheme of study.

Before dealing with the concept of

[1] This discussion was prepared especially to introduce the theoretical aspects of the subject for a conference on programs of optimum production in the Southern Region, held at Chapel Hill in the spring of 1933, under the auspices of the Southern Regional Committee of the Social Science Research Council. The purpose of the conference was to explore the possibilities of a comprehensive inquiry into the advisability of study and planning for an agricultural program in the South, which might attain the highest possible efficiency in the production of the most needed and important commodities in view of certain desirable needs of a better balanced agriculture and industry and a better balanced interregional relationship between the South and other regions. In addition to theoretical and practical aspects of the subject by Milton S. Heath, Martha McKee, Howard W. Odum, G. L. Tillery, there were informal discussions

optimum production I should like to distinguish two methods of work, or types of studies: namely, (a) particular studies and (b) general studies. This is not the old distinction between pure and applied economics. It is a difference in that phase of method which has to do with scope primarily. The same general tools of analysis—such as supply and demand, marginality, etc.—may be used in both types, but in particular studies much greater use is made of correlations, while the general studies depend more on devices through which they can present their facts in the form of general equilibrium or maximization of values.[2]

In particular studies the actual scope is determined by the problem chosen. It may be very narrow—involving only two or three variables in a very restricted area—say, trying to find out the best spot on one's farm to plant sweet potatoes for the family supply. A larger problem would be: whether to plant sweet potatoes to obtain the family supply; a still larger problem: the best arrangements of labor and capital on the farm; a yet larger: whether the community can afford to raise sweet potatoes; etc., etc. Use is made of whatever tools of thought and technical devices are most helpful toward reaching a solution of the problem. One may stop when one has reached the immediate goal and established a first generalization. The analysis has served a useful purpose. Or this first study may have shown additional variables that seem worth studying. One may have found the best spot to plant sweet potatoes, but may have decreased the income from tobacco. This may lead to additional study and broader generalizations. It is conceivable that one may work one's-self up through broader and broader generalizations until something like systematization has been attained. Such a system would be dynamic, because dynamic factors are inescapable if such a method is used. Therefore one might arrive at something like a moving equilibrium. However, most of our particular studies have remained confined to narrower fields,—prognosticating trends in wages, stock prices, wheat prices, production volumes; indicating time lags, etc. They have frequently been unfortunate when they essayed the larger rôle. I am not certain whether it is a weakness of statistical method or of the whole approach. I think it is the former.

In general studies, a general principle is set up—in economics it has usually been the maximization of satisfactions—a satisfactions optimum. Then the requisite machinery is set up whereby desires have free expression as to choice of all the possible products of the available production factors: perfect knowledge, free choice, perfect mobility, valuing machinery—customarily referred to as perfect competition. Thereby is obtained an ideal allocation of the factors of production in ideally organized, lowest long-run, average-cost firms functioning in various ideally homogeneous industries. The arrangement of all factors is such that any change in the placement of any factor would reduce the sum of social satisfactions. This is optimum production; and the individual business manifestation of it is the lowest average cost firm. Optimum production is simply the highest attainable efficiency in the production of

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[2] Cf. A. C. Pigon: Essay on the Function of Economic Analysis in Pigon and Robertson, *Economic Essays and Addresses*.

the values which are posited as the end of the system. It is meaningless except in terms of some value system. Therefore, the problem of obtaining optimum production, or a maximization of satisfactions, is one of studying the economic processes and attempting to remove those impediments to the free operation of the forces of competition. The optimum follows from the creation of the ideal conditions for the operation of the machinery of social valuation. These general studies are usually posited upon static assumptions: *e.g.*, Ricardo's stationary or natural state, J. B. Clark's static state, Walras' general equilibrium. No one has been entirely successful as yet in formulating a moving equilibrium for this general approach.

Both methods, (a) and (b), posit systematic behavior, and they are alike in that neither chooses its assumptions arbitrarily. But particular studies frequently suffer from failure to comprehend the nature or extent of the interdependability of phenomena; whereas general studies are almost helpless before the multiform complexity and variability of individual situations.

USES OF THE OPTIMUM CONCEPT

Among economists, the classical concept of maximizing production and satisfaction appeared to posit a national organization in which ideal operation of the forces of maximization took place. However, this national system was a part of a larger international system in which the competitive forces were hindered and impeded, but whose functioning modified and to a large extent regulated the operation of the national system. All were a part of an international system, but, outside of the behavior of money and of a few commodities, the chief rules of the international system were non-Euclidean whereas the national system was Euclidean, to paraphrase J. M. Clark's dichotomy. It was something of a compromise; it divided the general economic system and its forces into two particular studies,—national and international. This definition of scope was largely the result of political factors; and while somewhat paradoxical, possessed the strong virtue of reality. Certain types of international transactions have been very persistent and ante-date national behavior by many centuries. On the other hand, the emergence of strong nationalistic elements in the modern world has unified modern economic life into comparatively homogeneous national organizations, fitting into the various national boundaries. While there is a great deal of local, sectional, and regional specialization, yet monetary and banking systems, trading areas, production organizations, land systems, labor groupings are primarily national.

Another common use of the optimum concept is made in the study of individual business units. In this instance the individual firm is posited as the basic organization. Though such an analysis is an integral part of the broader analysis of general optima, those who have done most in this narrower field, have not been interested in general equilibria. They have worked on the problem of the best proportion of factors within the firm. Taking the price system as it stands, they work over laws of cost and economics of large-scale production. Every functional group within the firm is studied in terms of unit costs under various scales of production. These factors are not always complementary and the extent of complementariness differs from industry to industry and even from individual unit to individual unit within an industry. But the aim of such studies is to ascertain the most efficient unit—that one with the lowest

long-run average unit cost, the optimum firm.

Turning now to the methods of attacking the problem of optimum regional production, it seems to me optimum regional production suggests several different lines of thought. It may be viewed (1) as a problem in national or international equilibrium, or (2) as a problem in applying optimum formula to regional study under present conditions, or (3) as a problem in studying the possibilities of a regional system; what Professor Gras calls regional mercantilism, which seems to me an apt term, though carrying some unfortunate implications.

In the case of the first viewpoint, regional optimum has a narrow use. It would deal primarily with a study of time lags; with the effects of the spread of existing technique, as in the case of the industrialization of the South. It is difficult to study, regionally, the problems of variation from the conditions of general maximization, because variants may be controlled by factors outside of the region. This kind of study must be an integral part of the study of general optimum.

The second approach might attempt to apply optimum formulae to the facts and conditions within a region as one finds them. This appears to me to be untenable. Would optimum regional production be based upon optimum units of production within the region? But the optimum business unit breaks up into several factors—technique, management, finance, marketing.[3] The optimum will be largely conditioned upon whether one considers these factors wholly from a regional or from an interregional viewpoint. The best size of firm in the South will depend on whether it markets in the South or outside the South; where it buys; where it borrows. Optimum production in manufactured tobacco, textiles, steam power, steel, furniture, coco-cola, cannot be studied regionally at present. Yet in any picture of optimum southern production, the study would look odd if these industries were omitted. So far even as agriculture is concerned, whether the industries are included in the picture or not, means all the difference between having a market for a large part of the produce or not having a market, to say nothing of who would support our schools and governments, and furnish the tonnage for our railroads. It is impossible to study problems of optimum production wholly within a region which is a structural and functional part of a larger economic organization, because optimum production is conditioned by so many general factors common to the system as a whole. The very concept of optimum is all-embracing and must rest upon an independent mechanism. Regional planning, therefore, except as a subdivision of general planning, must be posited upon a regional system.

Regional planning involves coördinating. If a region is a part of a larger system, to attempt to plan independently of that larger system would be like one group of Mr. Ford's employees who live in one section of Detroit, say, deciding to enter into a planning scheme in Mr. Ford's plant independently of the other employees. That doesn't mean that any individual or group in the plant might not usefully study, and improve, the efficiency of their particular section of the plant, but even then, the test of efficiency must be in terms of the total operation, not of a particular department.

As for the proposal of regional mercantilism, it seems to me that this presents a wholly different problem from either of

[3] A. E. G. Robinson: *The Structure of Competitive Industry* contains an illuminating analysis of this and many other aspects of functional business organization.

those we have been considering. In the absence of a regional system, the study of hypothetical optima under conditions of hypothetical regional organization is highly unsatisfactory. The only accurate data available are the data of the existing system.

The thesis for regional mercantilism grows out of the fact that our present system is too large and unwieldy; that it is impossible to secure adequate control and stabilization under the circumstances. It should be broken down into regional structures that can be controlled, stabilized and made secure and self-contained.

Looking for a moment at these principles as they exhibit themselves in the business unit, we know that it is not possible to go on indefinitely enlarging and coördinating. There comes a point where the business unit loses efficiency; it can't be made to operate. Some aspects of industrial organization—largely technical—can be multiplied indefinitely without loss of efficiency; others cannot; thus the machine may become unworkable. So in economic society. Some aspects of our system could be multiplied and scattered all over the earth without loss of efficiency. Others, largely the coördinating, valuing, appraising, and directing functions cannot be pushed so far. In failing to distinguish these equally necessary factors is where the technocrats made their mistake. Thinking of the parts of economic organization that can be reproduced by a formula and a slide rule, and therefore can be increased to infinity without any loss of efficiency, they jumped to the conclusion that any size of system could be operated by technical principles.

We have never made an international system work. We feel we ought to be able to do so becuase so many of its characteristics are mechanical, its units clear-cut. But we have never been able to manage it successfully. It is so often said that nations will not permit the international mechanism to function. It would be just as sensible to say that a group of big business men who have put together a gigantic agglomeration of operating plants, only to have the combination break down, are too be blamed for not allowing it to succeed.

Likewise our national system is probably too large. We have followed the idea of territorial division of labor as some concerns do functional organization. When such principles are carried too far they may easily lose efficiency. If a biological analogy may be drawn,—and analogies are always dangerous—there seems to be some biological abhorrence of large mechanisms. They are inefficient. Though they developed to a certain extent in one era of plenty, they have practically become extinct. It may be that nature's supreme accomplishment—*homo sapiens*–has enabled her indirectly to overcome this mechanical weakness. But the evidence is very convincing that man, like nature, loses efficiency when he attempts to manipulate too large an organization.

Of course, to prove the truth of this thesis does not prove that there is a basis for regional mercantilism in the South. Looking into history, we find that the South has experienced a fair number of trials of state and municipal mercantilism. Also, there has been a great deal of regional planning, though few accomplishments. Actions based on local and state jealousies have been more typical. And withal, throughout, there have been so many outside factors in southern economy. Its history has been largely that of the influence of outside factors. Staple growing, the plantation system and slavery were not evidence of southern homogeneity, but only certain sectional aspects of an international system. The rise of the national system in the United States split

southern dependence between Europe and the North. And that remains the case to-day.

The rise of southern industry has not changed the situation. Southern manufacturers produce for outside markets. Southern transportation and marketing machinery has been built largely by outside capital and has been laid out in such a manner as to perpetuate these dominantly interregional characteristics of southern economy. Financial operations are almost wholly borne by outside agencies.

Prominent new outside factors have recently entered the picture. Some of these are of world-wide scope, such as the shifts in the production of cotton, tobacco, and sugar to new low-cost areas. Others are more immediate, among which are: (1) the increasing importance in our national system of some of our southern ports due to the development of the Panama Canal and coastwise traffic, and the increasing traffic between the United States and West Indies, Mexico, Central America, and South America; (2) changes in the iron and steel industry which have affected Birmingham adversely.

When you turn to popular sentiment in regard to regional interests, you find the South hopelessly split. The more powerful financial groups, whose interests are identified with national and international systems, are opposed to attempts to establish a regional system which would reduce geographical division of labor and prevent the economies of large scale production, management, and marketing. A regional optimum would unquestionably necessitate a reduction in the average size of our major industries, probably a reduction in population, and unquestionably a vast rearrangement of industries, peoples, and classes.

As a first step toward ascertaining the possibilities of regional mercantilism in the South studies might be made of latent regional boundaries, or trends tending to set up regional boundaries and stimulate the development of regional organization. *E.g.*, formerly, the southern rate structure was based wholly on interritorial and international exchange; now it is being modified. Also the same thing seems to be true of insurance and savings and trust companies with regard to finance. If you project these trends forward on the basis of their rates of growth you might construct a future regional optimum upon the future regional independence which these trends indicate. Such a study should also include persistent external factors whose relative importance does not tend to decline, as well as some external factors that may be tending to increase. Also persistent internal forces which remain constant, or which are increasing in intensity or which are declining must be included. In the latter instance, for example, take native business ability: is it leaving the South as it develops? It makes a greal deal of difference in your future optimum. Also the rise of intelligence of labor through education, or lack of it, would enter the picture.

Personally, I am very hospitable to the idea of regional mercantilism of a moderate sort. I would not only allow but encourage some sort of a customs union between New England and Eastern Canada. Everybody would benefit by it. Possibly the same thing should be recommended for the Pacific Coast and British Columbia and a part of Mexico.

But thorough-going regional mercantilism (presupposing an independent regional system), especially for the major regions in the central body of the United States, faces almost insuperable difficulties.